

## Medical Masks

**Medical masks are a tool that can be used to prevent the spread of respiratory infection.**

Medical masks are a type of personal protective equipment used to prevent the spread of respiratory infections. These masks cover the mouth and nose of the wearer and, if worn properly, may be effective at helping prevent transmission of respiratory viruses and bacteria.

There are 2 main types of masks used to prevent respiratory infection: surgical masks, sometimes referred to as face masks, and respirators. These masks differ by the type and size of infectious particles they are able to filter. Face masks are used more commonly for respiratory viruses that spread via droplets, which travel short distances and are transmitted by cough or sneeze. Face masks often fit loosely, and prevent the wearer from spreading large sprays and droplets, as well as preventing hand-to-face contact. N95 respirators block 95% of airborne particles. They are tight fitting and prevent inhalation of smaller infectious particles that can spread through the air over long distances after an infected person coughs or sneezes. Diseases that require use of an N95 respirator include tuberculosis, chickenpox, and measles. N95 respirators cannot be used by individuals with facial hair or by children because it is difficult to achieve a proper fit. In those cases, a special respirator called a powered air-purifying respirator may be used instead.

### When Should a Mask Be Used?

Face masks should be used only by individuals who have symptoms of respiratory infection such as coughing, sneezing, or, in some cases, fever. Face masks should also be worn by health care workers, by individuals who are taking care of or are in close contact with people who have respiratory infections, or otherwise as directed by a doctor. Face masks should not be worn by healthy individuals to protect themselves from acquiring respiratory infection because there is no evidence to suggest that face masks worn by healthy individuals are effective in preventing people from becoming ill. Face masks should be reserved for those who need them because masks can be in short supply during periods of widespread respiratory infection. Because N95 respirators require special fit testing, they are not recommended for use by the general public.

### How to Wear a Mask

If wearing a face mask is indicated, it is important to wash your hands with soap and water for at least 20 seconds prior to putting on the face mask. An alcohol-based sanitizer that contains at least 60% alcohol can also be used if soap and water are unavailable.

**Medical masks** can be used to prevent the spread of respiratory infections.

There are 2 main types of medical masks: **face masks** and **N95 respirators**.



**Face masks** fit more loosely and prevent the wearer from spreading large sprays and droplets when coughing or sneezing.

**N95 respirators** fit more tightly and prevent the wearer from inhaling smaller, airborne infectious particles. N95 respirators are not recommended for use by the general public.

### Face masks should only be used by

- Individuals with symptoms of respiratory infection such as coughing, sneezing, and sometimes fever
- Health care workers
- Persons taking care of or in close contact with someone with a respiratory infection

### How do I use a face mask?

- 1 Wash hands for at least 20 seconds prior to putting on a face mask.
- 2 Place face mask over nose and mouth. Ensure a tight seal with no gaps and secure elastics or straps.
- 3 Avoid touching the front of the face mask. If you do, wash hands for at least 20 seconds.
- 4 Remove the face mask without touching the front. Discard in a closed bin.
- 5 Wash hands again for at least 20 seconds.



After cleaning your hands, place the face mask over your nose and mouth. Make sure there are no gaps between the face mask and your face, and ensure a tight seal. Try to avoid touching the face mask when wearing it. If you do touch the face mask, wash your hands or use hand sanitizer again. When you are done using the face mask, remove it without touching the front of the face mask, and discard it into a closed bin. Wash your hands again after discarding the face mask.

## Preventing Infection Acquisition

Hand hygiene is one of the most important ways to prevent acquiring and spreading respiratory infections. Wash your hands often. Try not to touch your nose, eyes, or mouth prior to washing your hands. Avoid close contact with others who are sick. Clean household surfaces and objects with wipes or cleaning spray when available. If you become ill, stay home to avoid making other people sick.

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**Sources:** World Health Organization. When and how to use masks. <http://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks>

Centers for Disease Control and Prevention. Coronavirus disease 2019 (COVID-19): prevention and treatment. <https://www.cdc.gov/coronavirus/2019-ncov/about/prevention-treatment.html>

Radonovich LJ, Simberkoff MS, Bessesen MT, et al. N95 respirators vs medical masks for preventing influenza among health care personnel. *JAMA*. 2019;322(9):824-833.

## FOR MORE INFORMATION

Centers for Disease Control and Prevention

[www.cdc.gov/coronavirus/2019-ncov/about/prevention-treatment.html](https://www.cdc.gov/coronavirus/2019-ncov/about/prevention-treatment.html)

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